

CHAPTER 40

EQUIPMENT AND SUPPLIES

All Equipment and Supply Orders will follow established ordering procedures (Type 1, 2, 3 incidents), except for the redistribution of supplies within the National Fire Equipment System (NFES). Redistribution of excess supply items will be coordinated by the designated NFES Cache Manager(s). Cache orders will be filled to meet timeframes specified, using the most economical service. All NFES cache items are shipped ready for fireline use.

Black Hills National Forest Cache

The Black Hills National Forest Fire Cache is located at the Supervisor's Office warehouse in Custer, SD and is available for interagency use.

Supplies from this Cache will be ordered through GPC. The Cache includes the following:

- Fire Equipment Cache (one 100-person tool cache)
- Fire Camp Unit
- Fire Cache First Aid Kit
- Assortment of Road signs for fires.
- Firing Equipment:
 - 15 drip torches
 - 2 flare pistol & flares
 - 2 Plastic Sphere Dispensers (10,000 spheres) at CUT Helibase

Equipment and Supplies-General

Each unit should maintain tools and supplies at a level to handle normal operations for initial attack and minor support, such as outfitting available forces on the unit, regular fire replacement, and normal fire activity. Local cache inventory lists are due to RMK by April 1, annually. The larger Interagency Fire Caches shall maintain tools and supplies at a level to handle 90 percent of normal large fire activities.

During active fires or for emergency restocking of the forest cache, a Resource Order will be placed with Great Plains Dispatch Center (GPC). GPC will notify the regional cache of the needed supplies. Orders will be relayed to the best current supply source for dispatch. This will usually be one of the following:

- Rocky Mountain Area Coordination Center see page 94 in RMMG for more in-depth instruction
- Other Service Centers
- Other Agencies

Equipment/Supplies Mobilization

For initial attack, dispatchers will follow the "closest forces" concept and utilize locally available resources. See GPC Initial Attack Dispatching Guidelines in SOP book.

For extended attack, contracted resources awarded under the competitive solicitation process shall be mobilized using established dispatch procedures before at-incident agreements are issued on Federal Fires. Refer to NMG page 62 and RMG page 94 also GPC SOG 25 for additional instructions.

Equipment/Supplies Demobilization

When demobilizing contracted tactical equipment, contractors awarded Incident Blanket Purchase Agreements (I-BPAs) as a result of competitive solicitations, shall be given priority to remain on the incident over tactical equipment with incident-only EERAs, unless the Incident Commander determines it necessary to deviate based on a specific incident need or objective. This applies to contracted tactical equipment only, and not all contracted resources.

Release information for equipment and accountable supply items must be promptly relayed through ROSS.

When a large fire is controlled and the tools and equipment are no longer needed, they should be returned to the appropriate cache as soon as possible for re-conditioning. Tools and equipment that are damaged or lost shall be replaced immediately and charged to the fire.

National Interagency Support Cache Ordering Procedures Refer to NMG page 63 see also RMG page 95 for shipping instructions.

NFES Items in Short Supply Refer to NMG page 63.

Field Office Replenishment During Fire Season

If a unit uses their initial attack cache on a fire, it shall be permissible to reorder from RMK to restock the initial attack cache Refer to NMG page 63 and RMG page 96.

Field Office Replenishment Outside of Fire Season Refer to NMG page 63

Incident Replacement of NFES Items

Refer to NMG page 63, NFES Catalog, and page 98 of the RMG

The IMT or other incident personnel may authorize replacement of items at the incident if available, or by approving an Incident Replacement Requisition; OF-315/NFES 001300 for replacement of NFES items by the incident's servicing cache. Should the replacement of the approved items not be feasible prior to demobilization of the requesting resource, the incidents servicing cache will forward the request to the resources servicing cache. Caches may only process requests for NFES items. Requests for non-NFES items should be requested on a separate incident replacement requisition to be processed by the home unit. Please refer to the current Interagency Incident Business Management Handbook (Chapter 30) for procedures dealing with replacement of non-NFES supplies and equipment. Also see RMMG page 95 for NFES shipping instructions.

Incident Replacement: Type 1 and Type 2 Incidents

The incident Supply Unit Leader (SPUL) will be responsible for handling incident replacement requisitions when a Type 1 or Type 2 IMT is assigned. The SPUL approves replacement requests based on Engine Accountability sheets or other equipment inventory documents approved by the requesting resource's home unit. The use of the Incident Replacement Requisition Form (OF-315) is required. Refer to RMG page 98

Local Unit Incident Replacement: Type 3 and Type 4 Incidents Refer to NMG page 63

The hosting units' Agency Administrator or authorized representative must approve all replacement requests. Follow procedures for incident replacement, **Chapter 20**. Refer to GPC SOG 25.

For Incident Replacement Only: Local units will assign supply order numbers, for all Type 3, 4 and 5 incidents utilizing the following blocks of numbers:

BKF		NBF	
Helitack	5000 - 5999	Bessey	10000 - 10999
Hell Canyon	7000 - 7999	Pine Ridge	11000 - 11999
Northern Hills	8000 - 8499	Pine Ridge J.C.	12000 - 12999
Bear Lodge	8500 - 8999	Fall River	13000 - 13999
Mystic	9000 - 9999	Wall	14000 - 14999
		Fort Pierre	15000 - 15999
NPS		SDS	
All Parks	16000 - 16999	All SDS	17000 - 17999

Please refer to GPC Standard Operating Procedure #25 effective July 1, 2006 for the complete process of ordering Incident supplies and Incident replacements.

Incident to Incident Transfer of Equipment and Supplies Refer to NMG page 63**National Incident Radio Support Cache (NIRSC)** Refer to NMG page 61

NIRSC is a National Resource composed of multi-channel radio systems and kits available for complex incident communications. The priority use of NIRSC radio systems and kits are for active incidents. All radio systems and kits must be returned to NIRSC as soon as the incident has demobilized. A National Communications Duty Officer (CDO) is available at NIRSC throughout the year. Geographic Area Frequency Managers, Communication Coordinators (COMC), and Incident Communication Unit Leaders (COML) will coordinate with NICC, the Geographic Area, and the NIRSC CDO on all telecommunication issues.

For a complete listing of NIRSC telecommunications components, refer to the National Incident Radio Support Cache User's Guide, NFES 000968, or the NWCG Fire Supplies and Equipment Catalog, Part 1, NFES 000362 (<http://www.nwcg.gov/pms/pubs/catalog.htm>).

RMC will preposition at RMK two NIRSC starter systems (NFES #4390) from May 15 - Oct 15, annually, and up to four starter systems based on need. Refer to RMG page 100

National ICS Starter Radio Systems Refer to RMG page 100

For information on Starter Systems refer to the National Incident Radio Support Cache User's Guide, NFES #0968, or the NWCG Fire Supplies and Equipment Catalog Part 1, NFES #0362.

RMC will order the prepositioned starter system(s) on a R02 Radio Kit Staging/Preposition Supply resource order. When the NFES #4390 is transferred/committed to an incident, RMC will order a replacement starter system(s).

A Communications Unit Leader will be required for all dispatches of this system. Radios are ordered as Supplies. All radio equipment orders are sent direct to RMCC.

All NFES 4000 Series Radio Kits are ordered as Supply. Refer to RMG page 100 for shipping instructions.

GPC Radio Caches

There is a small Radio Cache, of 20 handhelds and two scene of action (SOA) repeaters located at the BKF Cache in Custer, SD. The SD Wildland Fire Division has a 25 unit digital radio cache in Rapid City, SD. All these radios shall be ordered through GPC. If more radios are needed, a larger cache can be ordered through the Rocky Mountain Area Coordination Center in Lakewood, CO.

Radio Frequencies

There are four primary radio channels on the Black Hills National Forest, Forest Net; a simplex frequency, and North, Central, and South zones that each has a unique frequency pair. These zone frequencies are the primary frequencies used for communication. The three zones consist of nine repeaters on the forest to increase ground to ground communications. Each zone also has a portable repeater for use when needed.

There are two primary radio frequency pairs on the Nebraska National Forest. Forest Net East and Forest Net West each have their own frequency pair. These zone frequencies are the primary frequencies used for communication. These consist of ten repeaters on the forest to increase ground to ground communications. There is one portable repeater, on East Zone, for use when needed.

All Aviation Resources including Lead planes and the forest helicopter will have both air-to-air (AM) and air-to-ground (FM) radios installed as well as Air Guard. The air tankers will have air-to-air radios, as well as Air Guard and National Flight Following frequencies.

All radio frequencies are coordinated through the Great Plains Interagency Dispatch Center in Rapid City, though briefings and radio assignments may be provided by the helitack base in Custer, the Rapid City Retardant Base or any of the SEAT bases located in the GPC zone.

BKF Forest Net is used for all local Flight Following anywhere within radio range of any of the Black Hills National Forest transceiver sites.

South Dakota Wildland Fire Division utilizes a digital trucked system but has the capability of communicating on the Black Hills National Forest Analog repeaters within the Black Hills Fire Protection District. If Federal, State and Volunteer Fire Department resources are responding, the incident should be managed on an analog frequency as the State and Volunteer Fire Departments have analog capability but most of the Federal units do not have digital capability. However, the IC or GPC may designate an alternate frequency repeater or request a Portable or SOA Repeater for command if the Black Hills National Forest Analog repeaters cannot provide coverage. This will be based on the location of the fire.

The National Park Service will use Forest Service frequencies as follows:

- Devils Tower NM will use Black Hills NF (BKF) North Zone frequencies.
- Mt. Rushmore NM will use BKF Central Zone frequencies.
- Badlands NP will use NBF frequencies.
- Wind Cave NP and Jewel Cave NM will use BKF South Zone frequencies.

VFIRES can be used by Federal and State units to contact county fire resources. Use of these channels outside the counties for which they are authorized must be cleared by South Dakota Wildland Fire Division in Rapid City.

The State of South Dakota has 7 digital Special Ops channels for use upon request from GPC.

For a list of frequencies refer to GPC Communication Plans

Communications Trailers

Pennington County Search and Rescue has a communications trailer with Forest Service, Mutual Aid, and State frequencies. The trailer is equipped with an on-board generator and is suitable for use as a command center. The trailer is equipped with a 37" monitor that can be hooked up for projecting maps, IAP's, etc. It also has the capability to network computers, printers, and plotters and hook up to satellite/phone communications throughout. There are two slide outs to provide extra working space; heaters, air conditioning, a refrigerator, and a microwave to provide additional logistical support. The trailer can haul one ATV and should be ordered through GPC.

Radio Mobilization

Requests for NIRSC radio systems and kits will be placed with NICC through established ordering channels. To insure proper frequency coordination, the ordering office must include the Latitude and Longitude of the incident on the resource order. Radios will be used as received without modification. Defective radio equipment will be immediately returned to NIRSC for maintenance. To maintain quality and quantity for the field, each Starter System or kit will be returned to NIRSC for rehabilitation immediately after each assignment. The incident or unit charged with custody of the radio equipment is responsible for a complete inventory of that equipment upon return from the incident. Refer to NMG page 65

Radio Demobilization

NIRSC radio systems and kits should be inventoried, sealed, and returned promptly to NIRSC/NIFC. Do not stockpile kits. Spare seals are supplied in each box. Incidents are responsible for ensuring all radio systems or kits are returned or accounted for on a Property Loss Statement. Refer to RMG page 101 for shipping instructions.

Fire/Project Remote Automatic Weather Stations, (IRAWS-NFES 005869/PRAWS-NFES 005870)

Approximately 50 IRAWS and 15 PRAWS are cached at the Remote Sensing Fire Weather Support Unit for response to wildland fires and other projects requiring environmental monitoring. For specific use and description, refer to the NWCG Fire Supplies and Equipment Catalog, Part 1, NFES 005869 and 005870. The availability of equipment and associated technician support depends on a variety of factors. Prior phone coordination with the National Interagency Fire Center Remote Weather/Fire Weather Support Unit (RSFWSU) at (208) 387-5726 is recommended.

Incident Remote Automatic Weather Stations, (IRAWS) NFES 005869

Refer to NMG page 66

Project Remote Automatic Weather Stations, (PRAWS) NFES 005870 Refer to NMG page 65

National Contract Mobile Food Services and National Contract Mobile Shower Facilities

For a complete listing of the Schedule of Items and contract specifications for the National Mobile Food Service Contract and National Mobile Shower Facilities Contract, refer to the current National Contract Mobile Food Services publication, NFES 001276, and the National Contract Mobile Shower Facilities publication, NFES 002729. This information can also be found at the following web site: <http://www.fs.fed.us/fire/contracting/>

Refer to NMG page 66 and RMG page 101

National Contract Mobile Food Service Units

Refer to NMG page 66 for additional contract information, and refer to the National Mobile Food Services Contract publication or the on the web at: <http://www.fs.fed.us/fire/contracting/food/food.htm>

National Contract Mobile Shower Facilities Units

Refer to NMG page 66 for additional contract information, and refer to the National Mobile Shower Facilities Contract publication or on the web at: <http://www.fs.fed.us/fire/contracting/shower/shower.htm>

National Contract Mobile Food Services and Shower Facilities Mobilization

All National Contract and CWN (Call When Needed) Mobile Food Service Units and Mobile Shower Facility Units in the lower 48 States are ordered through and mobilized by NICC through established ordering channels.

Mobile Food Service Unit requests require a completed Food Service Request Form at the time of request. (See **Chapter 20**)

Shower Facilities requests require the approximate number of personnel to service, estimated duration, and date and time the showering is to begin.

Refer to RMG page 102 for additional ordering considerations when ordering Mobile Food Services and Shower Facilities.

National Contract Mobile Food Services and Shower Facilities Reassignments

All reassignments of National Contract Mobile Food Services and Shower Facilities units will be communicated to the vendor by NICC. Refer to NMG page 66

National Contract Mobile Food Services and Shower Facilities Demobilization

All release information will be entered into ROSS within fifteen (15) minutes of demobilization. Contractors may take twenty-four (24) hours to rest and replenish supplies within the local area after release. After 24 hours, contractors must return to the unit's designated dispatch point.

Equipment Ordering Procedures Refer to RMG page 106

Engines and Water Tenders

The tables list the NWCG type minimum requirements for engines and water tenders. Please use these types when requesting engines and water tenders.

Engine ICS Typing

Requirements	Engine Type						
	Structure				Wildland		
	1	2	3	4	5	6	7
Tank minimum capacity (gal)	300	300	500	750	400	150	50
Pump minimum flow (gpm)	1000	500	150	50	50	50	10
@ rated pressure (psi)	150	150	250	100	100	100	100
Hose 2½"	1200	1000	—	—	—	—	—
1½"	500	500	1000	300	300	300	—
1"	—	—	500	300	300	300	200
Ladders per NFPA 1901	Yes	Yes	—	—	—	—	—
Master stream 500 gpm min.	Yes	—	—	—	—	—	—
Pump and roll	—	—	Yes	Yes	Yes	Yes	Yes
Maximum GVWR (lbs.)	—	—	—	—	26,000	19,500	14,000
Personnel (min)	4	3	3	2	2	2	2

— = Not applicable, NFPA = National Fire Protection Association, GVWR = gross vehicle weight rating.

Water Tender ICS Typing

Requirements	Water Tender Type				
	Support			Tactical	
	S1	S2	S3	T1	T2
Tank Capacity	4,000	2,500	1,000	2,000	1,000
Pump minimum flow (gal/min)	300	200	200	250	250
At rated pressure (psi)	50	50	50	150	150
Maximum refill time (minutes)	30	20	15	—	—
Pump and roll	—	—	—	Yes	Yes
Personnel (minimum)	1	1	1	2	2

— = Not applicable

Note:

1. All types shall meet Federal, state, and agency requirements for motor vehicle safety standards, including all gross vehicle weight ratings (GVWR) when fully loaded.
2. Type 3 engines and tactical water tenders shall be equipped with a foam proportioner system.

3. All water tenders and engine Types 3 through 6 shall be able to prime and pump water from a 10-foot lift.
4. Personnel shall meet the qualification requirements of NWCG's National Interagency Incident Management System: Wildland Fire Qualification System Guide (PMS 310-1, June 2012).

Common Additional Needs for Engines and Tenders (Request As Needed):

- All-wheel drive (includes four-wheel drive)
- High-pressure pump (250 psi at one-half flow of Type)
- Foam proportioner
- Compressed Air Foam System (CAFS) 40 ft³/min minimum
- Additional personnel

Engines

GPC Coordinating Group participating agencies own and operate a variety of engines. These resources are listed below by agency, type, and location.

Engine Staffing

Rocky Mountain Area Engines ordered for incidents within the RMA will be staffed with a minimum of three personnel. Engines responding to their respective jurisdictions within the RMA may be staffed to their agency/local minimum standards

Although the national standard staffing for most engines is two personnel, all engines orders shall specify the staffing deemed appropriate to ensure firefighter safety. In most instances, it will be necessary to specify 3 personnel on Type 4-7 engines to ensure that the principles of LCES (Lookouts, Communication, Escape Routes and Safety Zones) are adequately met.

Strike Teams: Engines

Only orders for Single Engines will be processed through dispatch channels. Strike Teams and Task Forces will be formed at the local level. When strike teams are ordered, the local dispatch office will be responsible for assigning individual "E" request numbers to each of the five engines making up the team. Dispatch will verify if a Strike Team Leader (STEN) is needed. If a STEN is needed, Dispatch will assign an "E" and an "O" request number

Agency

Unit	T 1	T 2	T 3	T 4	T 5	T 6	T 7
SD-BIA	-	-	-	6	-	30	-
SD-BKF	-	-	3	3	-	14	-
SD-NPS	-	-	-	-	-	5	-
SD-SDS*	-	-	1	4	-	14	-
SD-USFWS	-	-	-	1	-	5	-
ND-BIA	-	-	-	-	-	5	-
ND-USFWS	-	-	-	1	-	2	-
NE-BIA	-	-	-	-	-	1	-
NE-NBF	-	-	-	-	-	9	3
NE-NPS	-	-	-	-	-	2	-
NE-USFWS	-	-	-	-	-	5	6
WY-CRX	-	-	-	1	-	-	-
WY-NPS	-	-	-	-	-	-	-
Total	-	-	4	16	-	93	9

Cooperators

Unit	T 1	T 2	T 3	T 4	T 5	T 6	T 7
NE-VFD**	-	-	-	-	-	5	-
SD-VFD**	102	31	33	32	14	174	40
Total	102	31	33	32	14	179	40

* SD-SDS totals include Custer State Park and GFP

** Volunteer Engines available as Call When Needed (CWN)

Contractors

Unit	T 4	T 5	T 6
Bill Paulton Enterprises	-	-	2
Lyons	-	-	2
Structure Protection Specialists*	1	2	-
Sunfire Firefighting Services		1	1
Total	1	3	5

(Also see DPL's as things may change from time of print.) * Engines are Gel engines

Tenders

GPC Coordinating Group participating agencies own and operate a variety of water tenders. These resources are listed below by agency, type, and location.

Agency

Unit	Support T 1	Support T 3	Support T 4
SD-BIA	-	2	2
SD-NPS	1	1	-
SD-SDS*	1	1	
NE- USFWS	-	1	-
Total	2	5	2

Cooperators

Unit	Tactical			Support		
	T 1	T 2	T 1	T 2	T 3	T 4
SD-VFD**	6	10	5	26	41	6
Total	6	10	5	26	41	6

* SD-SDS calculations include Custer State Park and GFP

** Volunteer Engines available as Call When Needed (CWN)

Contractors

Unit	Tactical		Support		
	T 1	T 2	T 1	T 2	T 3
Anderson Excavation	-	-	1	-	2
Bill Paulton Enterprises	2	-	-	-	-
Rittberger Trucking	-	-	1	1	-
Hartshorn	-	-	2	-	-
Wellborn Aqualhaul	-	1	-	-	2
Wendt Trucking	-	-	2	1	-
Total	2	1	6	2	4

(See Dispatch Priority Lists)

Equipment

Unit Location	ID #	Type	Kind	Radio
BKF -				
Hill City	6027	D6NXL Dozer 145 hp	2008 Cat	Yes
Hill City	5240	D-6RXL Dozer 185 hp	2004 Cat	Yes
Hill City	4437	Tractor	2000 International	Yes
Hill City	4108	50-Ton Lowboy	1999 Klayne	No
Hill City	6451	25-Ton Trailer	2010 Trail Eze	No

Hill City	5643	Dump Truck	2006 International	Yes
Hill City	5644	Motor grader	2006 Cat	No
Hill City	5241	Backhoe	2004 Cat	No
Hill City	6028	25 Ton Trailer	2008 Mc Elrath	No
Hill City	5854	Dump Truck	2007 International	Yes
SDS -				
Rapid City	SDWF S-6	Safety/IT	Forest River	No
Rapid City	SDWF S-2	Plans Trailer	Featherlite	No
Rapid City	SDWF S-3-2	Information Trailer	Forest River	No
Rapid City	SDWF S-03-1	Finance Trailer	Feather Lite	No
Rapid City	SDWF S-13	Hose Trailer	Johnson Furance	No
Rapid City	SDWF S-1	IC	Trail-Lite	
Rapid City	DQ 021	Tractor	1993 West. Star	Yes
Rapid City	SDWF S-4	35-Ton Trailer W/ winch	2006 Dual-lite	No
Rapid City	SDWF S-11	10-Stall shower unit	Trailer	No
Rapid City	SD Dozer 1	T-3 Dozer 95 hp	2005 Komatsu	Yes
Rapid City	RCF 19	Cab-Over Tractor	1988 Peterbilt	No
Rapid City	SDWFS -10	Cache Van Trailer	Wabash DFRP	No
Rapid City	SDWF S-5	Operations Trailer	Forest River	
Rapid City	SDWF S-9	Logistics Trailer	Forest River	Yes
Rapid City	SDWF S-21	8x18 Flatbed Trailer	Diamond C	No
Rapid City	SDWF S-20	Camp Support Cargo Trailer	H&H	No
Rapid City	SDS -A741	ATV 4x4	Honda	No
Rapid City	SDS- A742	ATV 4x4	Honda	No
Rapid City	SDS- U161	UTV 6x6	Polaris	No
Rapid City	SDS- U162	UTV 6x6	Polaris	No
Rapid City	542A	Forklift, All Terrain, Extend	Lull	No

Contract Resources

Contractor	Equipment	Type	Kind/ID#
Anderson Excavation	Dozer	3	550G
	Dozer	3	550LG
	Excavator	3	CAT315L
	Tractor/Trailer	1	Peterbuilt

	Tractor/Trailer	1	EAGB
	Tractor/Trailer	1	9400
	Tractor/Trailer	1	Rogers
B&M Dozer Service	Dozer	2	09
	Dozer	2	02
B&M Dozer Service	Dozer	3	01
	Excavator	2	03
	Tractor/Trailer	1	86
	Transport	3	05
	Transport	3	06
	Transport	3	07
Chloeta Fire, LLC	Weed Washing Unit	1	CFI-2012
Diamond M	Dozer	3	Timber
	Tractor/Trailer	2	Timber3
Linde Logging	Dozer	1	D7
	Dozer	2	550G
	Dozer	2	Cat D4GXL
	Excavator	1	690E
	Lowboy	1	-
	Tractor/Trailer	2	FRTLNR
McDirt Excavation	Dozer	2	301
	Dozer	2	303
	Excavator	2	401
	Excavator	2	402
	Tractor/Trailer	1	201
Peekaboo Toilets, LLC	Weed Washing Unit	1	345623
Pedersen Excavation	Dozer	3	DZ2
	Dozer	3	-
	Excavator	2	LX1
	Excavator	3	LX2
	Tractor/Trailer	2	1
Powder River Energy	Dozer	1	2EN00465

(Also see Dispatch Priority Lists)

See RMG page 107 for definitions of:

Cooperators
Contractors,
Solicitations,

Agreements,
Competitive,
Non-competitive,
At-incident EERAs,
Dispatch Priority, and DPL
Critical documentation and
Resource Ordering and Status System (ROSS)

Emergency Equipment Rental Agreements (EERA's)

Commercial vendor's heavy equipment may be signed up locally on incident only EERA's after all other resources are committed. Refer to Great Plains Interagency Incident Service and Supply Plan for current list of vendors.

Retardant Plants

Portable/Mobile Retardant Bases Refer to RMG page 108

Specialized Equipment Refer to RMG page 109

Heli-torches (Aerial Drip Torch) Refer to RMG page 109

Aerial Ignition Devices (Plastic Sphere Dispensers) Refer to RMG page 109

Terra Torches Refer to RMG page 110

Batch Mixer Refer to RMG page 110

Seed Buckets Refer to RMG page 110

Potable Water Tenders Refer to RMG page 110

Mobile Cache Support Van NFES #8602 Refer to RMG page 111

Heavy Truck Transportation Refer to RMG page 112